

ABSTRACT ONLY

Patent Abstracts 1 Japan

PUBLICATION NUMBER : 04176867
PUBLICATION DATE : 24-06-92

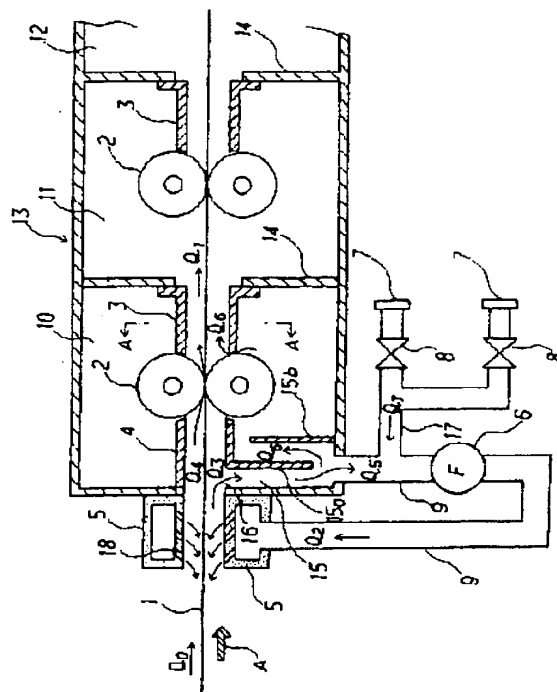
APPLICATION DATE : 13-11-90
APPLICATION NUMBER : 02303817

APPLICANT : KAWASAKI STEEL CORP;

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INT.CL. : C23C 14/56

TITLE : DUST-PROOF DEVICE OF
MULTISTAGE TYPE VACUUM
DIFFERENTIAL PRESSURE CHAMBER



ABSTRACT : PURPOSE: To prevent the outside air from infiltrating into a vacuum chamber and to stably form a vapor-deposited film having excellent quality on the surface of a band steel by providing a seal roll and a seal cylinder respectively to the insides of multistage differential pressure chambers in which vacuum deposition is continuously performed on a band steel.

CONSTITUTION: A band steel 1 is introduced into a third vacuum chamber 12 in the direction A shown in an arrow via a first and second vacuum differential pressure chambers 10, 11 equipped with seal rolls respectively. A vapor-deposited film is formed on the surface thereof. In this case, an inlet side seal cylinder 4 is provided to the seal roll 2 in the first vacuum differential pressure chamber of the inlet side of the band steel 1. Moreover a bypass 15 is provided by connecting it to this seal cylinder 4. A suction fan 6 by which air flows through the bypass 15 is provided to a pipeline 9 provided to the outside of the chamber 10. A bypass pipeline 17 having a filter for removing dust is fitted to the suction side thereof. Further the bypass pipeline 17 is connected to a blow off box 5 provided to the inlet of the chamber 10. Moreover a nozzle 18 is provided to the blow off box 5 to blow out the dust removed air sent from the suction fan 6 toward the band steel 1. Thereby the outside air containing dust is prevented from infiltrating into the vacuum chambers and a vapor-deposited film having good quality is formed.

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